

ABSTRACT OF THE DISCLOSURE

A first shaft and a second shaft are connected coaxially. A torsion bar converts a torque applied between two shafts into a torsion displacement.

5 A multipolar magnet is fixed to the first shaft. One set of magnetic yokes is fixed to the second shaft and disposed in a magnetic field generated by the multipolar magnet. One set of flux collecting rings is disposed along an outer surface of the set of magnetic yokes and opposed to each other via an air gap in an axial direction. A magnetic sensor is provided for detecting the

10 density of magnetic flux generated in the air gap. An outer cylindrical surface of the set of flux collecting rings is surrounded by a magnetic shield.